

Appl. No. : 09/804,509
Filed : March 12, 2001

REMARKS

Regarding definiteness

The Office indicated that Claims 9-22 were indefinite because of the use of the term "types" in Claim 9. The Claim has been amended so as to render the rejection moot.

Patentability of the Present Invention

The Office rejected claims 9-22 under 35 U.S.C. 102(b or e) as anticipated by or, in the alternative, under 35 U.S.C 103(a) as obvious over Murakami (U.S. 4,212,786)(D1), Okuda(U.S. 4,829,108)(D2), Fukuo et al (U.S. 6,074,465)(D3) or Fukuo et al (U.S. 6,203,910 B1)(D4). Applicant respectfully disagrees.

1) Summary of invention

The present invention relates to a solid composition comprising a colorant, a gelation agent, a resin component, and one of the following solvents:

- (i) a solvent having a solubility parameter value , Y, of no more than 8.5; or
- (ii) a solvent composed of at least two types of solvents, each solvent having (a) an HLB value, X, of no more than 6.5; or (b) an X and a Y wherein $Y \leq 18 - X$ when $6.5 < X$, $0 < Y$.

The present invention provides a solid composition having excellent wet-surface writing properties, high safety, satisfactory fluidity during manufacture, and no formaldehyde odor during manufacture and use.

In particular, excellent wet-surface writing properties as well as high safety can be achieved by using the specific solvents(s).

2) Novelty over D1 (U.S. 4,212,786)

D1 discloses a drawing crayon composition comprising

- (a) at least one member selected from the group consisting of an ester of cellulose, ether or cellulose, polyvinyl butyral, polyvinyl acetate and ethylenevinyl acetate copolymer,
- (b) at least one member selected from the group consisting of a condensation product of cyclohexanone and formaldehyde, a condensation product of meta-xylene and formaldehyde, an amide resin, a synthetic terpene resin and a terpene-phenol copolymer,

- (c) at least one dibenzylidene sorbitol, tribenzyliden sorbitol and derivatives of the sorbitols,
- (d) at least one of glycols, ethers of glycols, ether esters of glycols and benzoic acid esters, and
- (e) an oil-soluble dye (column 2, lines 13-26, Claim 1).

D1 is completely silent about a solid composition comprising a colorant, a gelation agent, a resin component, and (a) solvent(s) having the parameter described in above (i) or (ii).

In addition, D1 fails to teach or suggest that the solid composition comprising such elements can achieve excellent wet-surface writing properties, as well as low toxicity.

In Examples 2, 3, and 9 of D1, a use of ethylene glycol monobutyl ether that satisfies the above parameter value (ii) of the present invention is disclosed. However, a use of such solvent alone will result in a toxic solid composition and therefore is not preferable. This is clear from Comparative Example 7 (Table 2) in the present specification.

Thus, D1 fails to disclose the use of the specific solvent(s) of the present invention and the advantages realized by using the solvent(s)

3) Novelty over D2 (U.S. 4,829,108).

D2 discloses a solid coating composition comprising

- (A) at least one of a vinyl resin and cellulose resin and cellulose resin,
- (B) at least one of a ketone resin and cellulose resin,
- (C) an acrylic resin,
- (D) at least one member selected from the group consisting of benzylidene sorbitol, dibenzylidene sorbitol, tribenzylidene sorbitol and a derivative thereof,
- (E) at least one member selected from the group consisting of an ether of a glycol, ether ester of a glycol and a benzoic acid ester; and
- (F) pigment (Claim 1).

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D2 is completely silent about a solid composition comprising a colorant, a gelation agent, a resin component, and (a) solvent(s) having the parameter value described in above (I) or (ii).

In addition, D2 fails to teach or suggest that the solid composition comprising such elements can achieve the effects such as excellent wet-surface writing properties, low toxicity and the like.

In Examples 1 and 2 of D2, D2 discloses a use of ethylene glycol monobutyl ether that satisfies the above parameter value (ii) of the present invention. However, a use of such solvent alone will result in a toxic solid composition. This is clear from Comparative Example 7 (Table 2) in the present specification.

D2 fails to suggest the use of the specific solvent(s) and the advantages thereof.

4) Novelty over D3 (U.S. 6,074,465)

D3 discloses a fluorescent crayon comprising a solution type fluorescent coloring agent, a gelling agent, an organic solvent, and a resin component (Claim 1).

D3 fails to disclose a solid composition comprising a colorant, a gelation agent, a resin component, and (a) solvent(s) having the parameter value described in above (i) or (ii).

In addition, D3 fails to teach or suggest that the solid composition comprising such elements can achieve the effects such as excellent wet-surface writing properties, low toxicity and the like.

In Examples 1, 2, and 4 of D3, D3 discloses a use of propylene glycol monomethyl ether and dipropylene glycol monomethyl ether as an organic solvent. However, writing on wet-surfaces cannot be achieved by a solid composition comprising propylene glycol monomethyl ether or dipropylene glycol monomethyl ether, which is clear from comparative Examples 1, 2, 4-6 and 8 (Table 2) of the present specification.

D3 nowhere suggests the problems caused when applying a solid composition to a wet-surface and the solutions to the problems.

5) Novelty over D4 (U.S. 6,203,910)

D4 discloses an anhydrous crayon comprising a pigment component, a gelling agent, an organic solvent and a resin component, the organic solvent consisting of

propylene glycol monomethyl ether and dipropylene glycol monomethyl ether (column 1, lines 60-62, Claim 1).

D4 fails to disclose a solid composition comprising a colorant, a gelation agent, a resin component, and (a) solvent(s) having the parameter value described in above (I) or (ii).

In addition, D4 fails to teach or suggest that the solid composition comprising such elements can achieve the effects such as excellent wet-surface writing properties, low toxicity and the like.

The invention of D4 comprises propylene glycol monoethyl ether and dipropylene glycol monomethyl ether as essential elements. However, as clear from Comparative Examples 1, 2, 4-6 and 8 (Table 2) in the present specification, a solid composition comprising propylene glycol monomethyl ether or dipropylene glycol monomethyl ether exhibits no wet-surface writing property.

No suggestion can be found in D4 about the problems caused when a solid composition is applied to wet-surface and the solutions to the problems.

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6) Conclusion

From D1-D4, no motivation stems to conceive the solid composition of the present invention having excellent wet-surface writing properties and high safety by employing the specific solvent(s)

In light of the above, Applicant requests that all rejections be withdrawn and the claims be allowed.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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